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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,468	08/21/2003	David Donald Haynes	DCS 8705US	7998
1688	7590	01/18/2005	EXAMINER	
POLSTER, LIEDER, WOODRUFF & LUCCHESI			BETZ, BLAKE E	
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2672

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/645,468

Applicant(s)

HAYNES, DAVID DONALD

Examiner

Blake E. Betz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,7-19 and 25-27 is/are rejected.
- 7) ☒ Claim(s) 2-6 AND 20-24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION***Claim Objections***

Claim 12 is objected to because of the following informalities: claim 12 should be dependent on claim 11 and not claim 10. Claim 12 discloses a method wherein the information used to produce separate graphic displays is combined. Claim 10 and its parent claims do not provide information regarding separate graphic displays, wherein the method of claim 11 includes providing separate graphic displays. Therefore, in the following office action claim 12 is read to be dependent on claim 11. Appropriate correction is required.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 11, 12, 19, 25, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. PG PUB No. 20040021687 to Wobben.

Wobben teaches of a method for displaying the operating conditions of a wind power installation in a graphic display. Paragraph 11, lines 9 – 14, states,

“Finally a symbol is specified in an overview such as for example a geographical map (for example a map of Germany) for each installation or a group of installations, in which case the nature of the installation and the operating status of the respective installation or a group of installations can be derived from the symbol.” Figure 2 shows a display of the invention in which various symbols are used to represent separate segments of a network of installations. Paragraph 12 discloses the meaning of the different symbols used to display the performance characteristics of the installations to an observer of the graphic display. “Thus for example a symbol such as a green circle can signify that the installation is a wind power installation which is (serviceable) in operation while a symbol such as a red circle indicates that the installation is out of operation. The symbol of a red-green circle (a red semicircle and a green semicircle are put together to form a circle) can indicate that the installation is admittedly basically serviceable but is switched off by virtue of maintenance operations.” Thus by using a system of green, red, and red-green circles, an observer is able to determine whether operations within the network are acceptable, if there is a problem, where it is occurring, and the magnitude of the problem such as if an installation is switched off due to maintenance operations or if it is out of operation.

The method of claims 11 and 12 are disclosed by the invention of Wobben. Figure 2 shows a graphic display in which various installation segments of the electrical distribution network are included in the same display. Paragraph 31 includes the function of producing a separate display from the original display of the multiple segments to provide information about a particular

installation. "By touching the symbol of an installation or a wind park with a pointer such as for example a mouse pointer or by clicking or double clicking on the symbol, it is possible to display further selected, openly available items of information about the installation or the wind park." Thus, information from the entire network is combined to produce an overall graphic display wherein separate displays are made available to a user so as to allow for the viewing of information of a particular installation segment.

The methods of claims 19, 25 and 26 are disclosed by the invention of Wobben. Figure 2 shows a graphic display for monitoring a plurality of installation network segments to obtain information about predetermined types of incidents occurring within each respective segment. As mentioned in the rejection of claim 1, different symbols and color codes are used to signify on the display the condition of the segments. Paragraph 40 states that the display can be produced in an updated fashion according to a defined time period. "The respective maps or overviews can be produced by virtue of continuous operating data acquisition in up-to-date fashion, that is to say with the up-to-dateness of a day or less but also with the up-to-dateness of a week. The person looking at the map/overview can see therefrom, how reliable (or how unreliable) the installations of a given manufacturer/operator generally are and can form therefrom a judgment about the quality of the installations." By monitoring such a display over time, a user can determine where in the network an incident occurred and the number of incidents that occur over a predetermined period of time.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PG PUB No. 20040021687 to Wobben in view of U.S. Patent No. 6,026,145 to Bauer et al.

Wobben discloses the methods of claims 7 and 8 except in which monitoring a segment of the network includes counting customer complaints regarding problems within areas of the network segment and counting the occurrences of power outages within the network segment. Wobben, as stated in the rejection for claims 1, 11, and 12, discloses determining a power outage of an installation segment in a graphic display and displaying the segment in a color coded symbol. Bauer teaches of a method and apparatus for fault segmentation in a telephone network. Bauer includes the use of trouble reports and complaints from customers to narrow the possible locations for failures in the network. A trouble history analyzer is also included to take into consideration past complications and problems for finding faults in the network. Column 15, lines 15 – 24, of Bauer describes a black spot analyzer which performs the function of incorporating customer complaints to determine the location of a failure in the network. Lines 38 – 49 describe the trouble history analyzer. Lines 52 – 59 describe using the black spot and trouble history analyzers, “Rule based classifier 356 is preferably another rule based expert system. It is programmed with rules to make predictions about failure locations based on the conclusions drawn by footprint analyzer 350, black spot analyzer 352 and trouble history analyzer 354 and based on information about the current line, including footprint information, cable data and historical failure information.” It would have been

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obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Wobben to include counting customer complaints regarding problems within areas of the network segment as shown in Bauer.

One would have been motivated to make such a modification to the invention of Wobben to facilitate the locating of faults in the monitored network through the use of customer complaints. It would have additionally been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Wobben to include counting the occurrences of power outages with the network segment as performed by the trouble history analyzer in Bauer. One would have been motivated to make such a modification to Wobben so as to facilitate the locating of faults in the monitored network.

Claims 13 – 18 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PG PUB No. 20040021687 to Wobben in view of U.S. Patent No. 6,486,899 to Bush, Jr.

Wobben discloses the use graphic displays where information on the characteristics of power installations is color coded. Wobben does not, however, teach of using a three dimensional display to facilitate understanding the information presented. Bush teaches of a method for displaying logistics information associated with a supply chain. Column 4, lines 15 – 25, states, "Presentation interface 28 generates visual display 32 based on the logistics information generated by planning engine 26. As described above, logistics information relates to the movement, location, or movement and location of raw materials, component parts, equipment, products, or any other items that may

flow from one supply chain entity to another in a supply chain. Buttons 39 permit a user to select different plans generated by engine 26. In one embodiment, visual display 32 is a multi-dimensional report that provides, in a single window, information that would otherwise require separate windows.” Thus, Bush teaches that a three-dimensional graph may be used to display characteristics of a distribution network. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Wobben to display the characteristics of power installations in a network on a three-dimensional graph as in Bush. One would have been motivated to make such a modification to the invention of Wobben such that information that would otherwise require separate windows could be displayed in a single window.

The method of claim 14 is disclosed by the invention of Wobben and Bush. Paragraph 12 teaches of using different symbols used to display the performance characteristics of installations to an observer of the graphic display. “Thus for example a symbol such as a green circle can signify that the installation is a wind power installation which is (serviceable) in operation while a symbol such as a red circle indicates that the installation is out of operation. The symbol of a red-green circle (a red semicircle and a green semicircle are put together to form a circle) can indicate that the installation is admittedly basically serviceable but is switched off by virtue of maintenance operations.” Thus by using a system of green, red, and red-green circles, an observer is able to determine whether which types of incidents occurred at particular locations such as if an installation is switched off due to maintenance operations or if it is out of operation.

The method of claims 15 and 27 is disclosed by the invention of Wobben except wherein the display may be rotated about any axis of the display to allow a viewer to readily view particular features on the terrain map. Bush teaches of manipulating a display by rotating it along any axis so a user may see hidden or obscured data. Column 9, lines 66 – 67, and column 10, lines 1 – 4, state, “According to the present invention, visual display 32 may be manipulated in any of the ways used to manipulate standard three-dimensional graphics. For example, visual display 32 may be rotated along any of three axes, or a user may rearrange visual display 32 using input device 18 to reveal hidden or obscured data.” It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the method of Wobben to include rotating the terrain map about any of its axis. One would have been motivated to make such a modification to Wobben so that a user viewing the map may be able to manipulate the orientation of the layout and view hidden or obscured data.

The method of claims 16 and 17 are disclosed by the invention of Wobben and Bush. Paragraph 13 describes electronically storing information from the graphical display and allowing users to access the information via the Internet. “The overview provided in that way can identify various kinds of installations and is constantly updated, stored in the form of an electronic file and made available in an information network, for example an Internet network, and made available for being called up by way of an Internet domain address, for example by way of the address of the installation manufacturer.” Thus, the stored information can be displayed at more than one viewing location.

The method of claim 18 is disclosed by the invention of Wobben and Bush. Paragraphs 15 and 16 discuss displaying data on the graphic display representing various periods of time. Additionally, a continuously updated map allows users the ability to view the serviceability of installations on the display. "It is also advantageous not only to associate still further data with an operating site of an installation but also to already represent it on the map. Such data can be for example the operating times of a given past period of time, for example the past month, the last year and so forth, so that the person viewing it also has a highly informative picture about the reliability of an installation.

Thus, by virtue of the constantly updated acquisition of operational data, it is possible by way of a network such as for example the Internet for anyone to obtain online a continuously updated map which also shows the viewer the serviceability of a plurality of installations in a given geographical area, and this is always on an up-to-date basis (or up-to-date in the context of a day or a week)." Thus, the display is periodically updated to include information for another predetermined period of time.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PG PUB No. 20040021687 to Wobben in view of U.S. Patent No. 6,026,145 to Bauer et al. as applied to claim 8 above, and further in view of Cease et al.

The method of claim 9 is disclosed by the invention of Wobben in view of Bauer et al. except wherein the monitoring further includes measuring line voltages at the respective locations within the network. Paragraph 41 of Wobben

discloses that data relating to the total amounts of energy delivered by the installations may be specified by the display. "Besides the functional or operating data of the installations, it is also possible to specify, in relation to each installation, the wind data and/or the operating data of the individual installations or the data relating to the total amounts of energy delivered by the installation."

Cease et al. discloses a system of phasor measurement units employed throughout the TVA power system that are able to monitor the voltage and current at their position in the system. Page 3, second paragraph, states, "The data concentrator can also be configured to return the actual voltage at the PMUs real panel input, or as an actual line voltage or current if the appropriate pt or ct ration or shunt resistances are provided the data concentrator." It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the method of Wobben in view of Bauer to include measuring line voltages at locations within the network as done by Cease. One would have been motivated to make such a modification to Wobben such that the monitoring of the energy delivered by an installation also includes measuring the line voltages at the installation.

The method of claim 10 is disclosed by the invention of Wobben in view of Bauer et al. Paragraph 2 of Wobben states, "It is known that the operating behaviour of an installation can be continuously detected and the detected data can also be made available to the operator of the installation. If for example the operator of an installation has a suitable telecommunication device (for example a modem), he can obtain information about all relevant data of his installation, for

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example whether it is in operation, the output power with which it is operating at the present time or whether there is a fault, and if so, what the reason for the fault is, and so forth." Thus, the information about the installation segment is obtained using a two-way communications system via a modem.

Allowable Subject Matter

Claims 2 – 6 and 20 – 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,825,656 to Moore et al.

The following patents are cited to further show the state of the art with respect to three-dimensional displaying of information.

U.S. Patent No. 5,550,964 to Davoust

U.S. Patent No. 6,188,403 to Sacerdoti

U.S. Patent No. 6,301,579 to Becker

U.S. Patent No. 6,366,284 to McDonald

U.S. Patent No. 6,542,156 to Hong et al.

U.S. Patent No. 6,707,454 to Barg et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blake E. Betz whose telephone number is (703) 605-4584. The examiner can normally be reached on 7:30 - 4:00 M-F.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703) 305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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